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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,380	09/26/2003	Sang-Hyuk Lee	041993-5240	6896

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EXAMINER	
DUONG, TAI V	

ART UNIT	PAPER NUMBER
2871	

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/670,380	LEE, SANG-HYUK	
	Examiner	Art Unit	
	Tai Duong	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 February 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,6,7 and 9-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6,7,9-11,13,14,17 and 18* is/are rejected.

7)☒ Claim(s) *12,15,16 and 19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The rejection over Lee et al'467 and Lee et al'547 is withdrawn in view of the certified English translation of the Korean priority paper.

The finality of the rejection of the last Office action is withdrawn.

Applicant's arguments with respect to claims 1, 6 and 9 have been considered but are moot in view of the new ground(s) of rejection.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda (US 5,684,557) in view of Lee et al'547 (US. 2002/0101547) of record.

Matsuda discloses in Figs. 2A-B a method for fabricating a liquid crystal display (LCD) panel comprising the step of subsequently providing a discharging device 27 for removing an electrostatic charge from the liquid crystal display panel P (col. 1, lines 11-24; col. 2, line 26 – col. 3, line 11). Thus, the only difference between the method of Matsuda and that of the instant claims is Lee et al'467 are silent about forming an alignment layer on the first and second substrates of the LCD panel and the liquid crystal display panel being a color active matrix LCD panel. However, Lee et al'547 disclose that it is common in the art to manufacture color active matrix LCD panels (paragraph 0007), to form the alignment layers (paragraph 0108) and to remove the shorting bar (paragraphs 0012, 00156). Thus, it would have been obvious to a person of ordinary skill in the art in view of Lee et al'547 to employ in Lee's method a color active

matrix LCD panel and alignment layers for manufacturing color LCD panels with high resolution and high contrast.

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda and Lee et al'547 as applied to claim 9 above, and further in view of the M. Ohta et al article cited by Applicant and Tanaka et al'435 of record.

The only differences between the method cited in the above rejection of claim 9 and that of claims 10 and 11 are forming the alignment layer by applying a thin film of polymer and performing a rubbing process, and the thin film transistor substrate including a thin film transistor, a pixel electrode and a common electrode (in-plane switching mode). . As to claim 10, it would have been obvious to a person of ordinary skill in the art to form the alignment layer includes applying a thin film of polymer and performing a rubbing process for uniformly aligning the liquid crystal molecules, as evidenced by Tanaka et al (col. 22, line 63 – col. 23, line 36). The M. Ohta et al article discloses that it was known to employ the thin film transistor substrate including a thin film transistor, a pixel electrode and a common electrode. Thus, it would have been obvious to a person of ordinary skill in the art in view of M. Ohta et al to employ in the method cited in the above rejection of claim 9 the thin film transistor substrate including a thin film transistor, a pixel electrode and a common electrode for fabricating a wide-viewing angle LCD.

Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda and Lee et al'547 as applied to claim 9 above, and further in view of JP 09-213597 (JP'597).

The JP'597 discloses that it was known to employ an ionizer 6 for supplying continuously positive ions N_2^+ and negative ions N_2^-. Thus, it would have been obvious to a person of ordinary skill in the art in view of M. Ohta et al to employ in the method cited in the above rejection of claim 9 an ionizer (discharging device) for supplying continuously positive ions N_2^+ and negative ions N_2^- for effectively removing electrostatic charge from the LCD panel without forming extra discharging devices on the LCD panel.

Claims 1-3, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda, Lee et al'547 and JP'597 as applied to claims 9 and 17 above.

Claims 1-3, 6 and 7 are similar to claims 9 and 17 but additionally recite the step of performing a lighting test for the liquid crystal display panel. However, it is common in the art to perform a lighting test (visual display test) for the liquid crystal display panel, as evidenced by Lee et al'547 (paragraphs 0013 and 0156). Thus, it would have been obvious to a person of ordinary skill in the art in view of Lee et al'547 to perform a lighting test (visual display test) for the liquid crystal display panel in the method cited in the above rejections of claims 9 and 17 for detecting defective LCD panels.

Claims 12, 15, 16 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 12 is allowed over the prior art because none of the prior art discloses or suggests a method as recited in claim 9 *in combination* with the feature "the discharging device is *disposed at a rear surface* of the thin film transistor substrate of the LCD panel". Claim 15 is allowed over the prior art because none of the prior art discloses or

suggests a method as recited in claim 9 *in combination* with the step of disposing *serially a cleaning unit and a lighting test unit*. Claim 16 is also allowed since it depends on claim 15. Claim 19 is allowed over the prior art because none of the prior art discloses or suggests a method as recited in claim 15 *in combination* with the step of providing a discharging device at each of the cleaning unit and the lighting test unit for removing an electrostatic charge from a back surface of the first substrate.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

This Office action is made *Final* because claims 1, 6, 9, 11-15, 17 and 19 have been amended in the amendment dated 08/29/05 in response to the Office action dated 06/14/05.

Any inquiry concerning this communication should be directed to Tai Duong at telephone number (571) 272-2291.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

TD

TVD

02/06

TOAN TON
PRIMARY EXAMINER